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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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Peter Flamang

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EXAMINER

CUEVAS, PEDRO J

ART UNIT

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PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/524,010	<b>Applicant(s)</b> FLAMANG ET AL.	
	<b>Examiner</b> PEDRO J. CUEVAS	<b>Art Unit</b> 2834	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 26 December 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 18, 19, 21-36, 39, 40 and 42 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 18, 19, 21-36, 39, 40 and 42 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 26 April 2007 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
- ☒ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                     | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

## **DETAILED ACTION**

### ***Response to Arguments***

1. Applicant's arguments filed on December 26, 2007 have been fully considered but they are not persuasive.
2. In response to applicant's arguments against the references individually, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986).
3. In response to applicant's argument that item 136 "are merely rollers that frictionally engage the outer circumferential surface of the sun roller 134", it must be noted that said rollers "modules" operate at different speeds or stages. It must be noted that where applicant acts as his or her own lexicographer to specifically define a term of a claim contrary to its ordinary meaning, the written description must clearly redefine the claim term and set forth the uncommon definition so as to put one reasonably skilled in the art on notice that the applicant intended to so redefine that claim term. *Process Control Corp. v. HydReclaim Corp.*, 190 F.3d 1350, 1357, 52 USPQ2d 1029, 1033 (Fed. Cir. 1999). The term "module" in claims 18-19, 26-34, 39-40 and 42 is used by the claim to mean "system", while the accepted meaning is "A standardized, often interchangeable component of a system or construction that is designed for easy assembly or flexible use.", as defined by *The American Heritage® Dictionary of the English Language, Fourth Edition, Published by Houghton Mifflin Company. All rights reserved.*, © 2006 by Houghton Mifflin Company. The term is indefinite because the specification does not clearly redefine the term.

4. In response to applicant's argument that the examiner's conclusion of obviousness is based upon improper hindsight reasoning, it must be recognized that any judgment on obviousness is in a sense necessarily a reconstruction based upon hindsight reasoning. But so long as it takes into account only knowledge which was within the level of ordinary skill at the time the claimed invention was made, and does not include knowledge gleaned only from the applicant's disclosure, such a reconstruction is proper. See *In re McLaughlin*, 443 F.2d 1392, 170 USPQ 209 (CCPA 1971).

5. In response to applicant's argument that it would be impossible to execute Dehlsen et al. in Makino et al., the test for obviousness is not whether the features of a secondary reference may be bodily incorporated into the structure of the primary reference; nor is it that the claimed invention must be expressly suggested in any one or all of the references. Rather, the test is what the combined teachings of the references would have suggested to those of ordinary skill in the art. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981).

6. In response to applicant's argument that there is no suggestion to combine the references, the examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992).

In this case, the improvement of the generated power quality and added established reliability through redundancy by the use of a plurality of generators as disclosed by Dehlsen et

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al. on the wind driven electrical power generating apparatus as disclosed by Makino et al. is a clear motivation to combine their teachings.

***Claim Rejections - 35 USC § 103***

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claims 18-19, 27-29, 32-35, 39 and 42 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 6,608,397 B2 to Makino et al. in view of U.S. Patent No. 6,304,002 B1 to Dehlsen et al.

Makino et al. disclose the construction of a wind driven electrical power generating apparatus, comprising:

a low speed gear (134); and

a plurality of high speed gears (136);

wherein said low speed gear module is operable simultaneously to transmit torque to each of said high speed gear modules (column 5, lines 43-60); and

whereby a rotor (2) is supported by at least one bearing which is integrated in a housing (25) of the low speed gear module.

However, it fails to disclose a plurality of electrical generators.

Dehlsen et al. disclose the construction of a distributed powertrain for high torque, low electric power generator, comprising a plurality of electrical generators (70), each attached to a

gear module, for the purpose of improving generated power quality and establishing reliability through redundancy.

It would have been obvious to one skilled in the art at the time the invention was made to use the plurality of electrical generators and control means disclosed by Dehlsen et al. on the wind driven electrical power generating apparatus disclosed by Makino et al. for the purpose of improving generated power quality and establishing reliability through redundancy.

It would have also been obvious to one having ordinary skill in the art at the time the invention was made to increase the amount of gear stages, since it has been held that mere duplication of the essential working parts of a device involves only routine skill in the art. *St. Regis Paper Co. v. Bemis Co.*, 193 USPQ 8.

9. With regards to Claim 27, Makino et al. discloses each high speed gear module housing providing support for bearings which rotatably support one or more rotatable components of that gear module (Figures 4A and 4B).

10. With regards to Claim 28, Makino et al. discloses at least one high speed gear module having an electrical generator (48) associated therewith.

11. With regards to Claim 29, Makino et al. discloses the or each said electrical generator receives input torque via only one high speed gear module (Figure 3).

12. With regards to Claim 32, Makino et al. discloses an intermediate stage gear module is provided between the low speed gear module and each high speed gear module.

13. With regards to Claim 33, Makino et al. discloses a spline connection provided between the low speed gear module and each high speed gear module (Figure 8).

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14. With regards to Claim 35, Makino et al. discloses the low speed shaft is supported on one or more bearings, which also act as rotor bearings (Figure 5).

15. With regards to claim 39, Dehlsen et al. disclose powered rotor assembly coupled to a low speed input of the low speed gear module, and a nacelle support structure, wherein the low speed gear unit comprises a housing which transmits forces from the rotor assembly to the nacelle support structure.

16. Claims 21-26, 30 and 40 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 6,608,397 B2 to Makino et al. in view of U.S. Patent No. 6,304,002 B1 to Dehlsen et al. as applied to claims 18-19, 27-29, 32-35, 39 and 42 above, further in view of U.S. Patent No. 4,565,929 A to Baskin et al.

Makino et al. in view of Dehlsen et al. disclose the construction of a wind driven electrical power generating apparatus as disclosed above.

However, it fails to disclose a housing adapted to transfer rotor forces and bending moments to a nacelle structure and integrated with the base plate of the nacelle of the wind turbine.

Baskin et al. teach the construction of a wind powered system for generating electricity comprising a housing (yaw bearing 20) adapted to transfer rotor forces and bending moments to a nacelle structure (16), and integrated with the base plate of the nacelle of the wind turbine for the purpose of providing a yaw control system.

It would have been obvious to one skilled in the art at the time the invention was made to use the yaw bearing disclosed by Baskin et al. on the wind driven electrical power generating

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apparatus disclosed by Makino et al. in view of Dehlsen et al. for the purpose of providing a yaw control system.

It has been held that the recitation that an element is “adapted to” perform a function is not a positive limitation but only requires the ability to so perform. It does not constitute a limitation in any patentable sense. *In re Hutchison*, 69 USPQ 138.

It would have also been obvious to one having ordinary skill in the art at the time the invention was made to integrate the housing and the base plate, since it has been held that forming in one piece an article, which has formerly been formed in two pieces and put together, involves only routine skill in the art. *Howard v. Detroit Stove Works*, 150 U.S. 164 (1893). The term “integral” is sufficiently broad to embrace constructions united by such means as fastening and welding. *In re Hotte*, 177 USPQ 326, 328 (CCPA 1973).

17. With regards to Claims 23 and 25, Baskin et al. discloses wherein the housing is:

used to transmit rotor loads to a tower supporting the nacelle of the wind turbine;  
fixed to the wind turbine's structure via supports that form part of the housing and which are extended in a base plate that supports the gear unit and rotor, as well as the yaw bearing of the nacelle.

It must be noted that a recitation of the intended use of the claimed invention must result in a structural difference between the claimed invention and the prior art in order to patentably distinguish the claimed invention from the prior art. If the prior art structure is capable of performing the intended use, then it meets the claim.

It should be emphasized that “apparatus claims must be structurally distinguishable from the prior art.” MPEP 2114. *In re Danly*, 263 F. 2d 844, 847, 120 USPQ 528, 531 (CCPA 1959) it



was held that apparatus claims must be distinguished from prior art in terms of structure rather than function. In *Hewlett-Packard Co. v Bausch & Lomb Inc.*, 909 F.2d 1464, 1469, 15 USPQ2d 1525, 1528 (Fed. Cir. 1990), the court held that: “Apparatus claims cover what a device is, not what it does” (emphases in original). To emphasize the point further, the court added: “An invention need not operate differently than the prior art to be patentable, but need only be different” (emphases in original).

18. With regards to Claim 26, 30, 36, it would have been obvious to one having ordinary skill in the art at the time the invention was made to make the support housing selectively releasable and removable from the housing of the low speed gear unit, since it has been held that constructing a formerly integral structure in various elements involves only routine skill in the art. *Nerwin v. Erlichman*, 168 USPQ 177, 179.

19. With regards to Claim 31, Makino et al. discloses said generator comprising a shaft (22) rotatably coupled to the high speed gear module via a spline connection.

### ***Conclusion***

20. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event,

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however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to PEDRO J. CUEVAS whose telephone number is (571)272-2021. The examiner can normally be reached on M-F from 8:30 - 6:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Darren E. Schuberg can be reached on (571) 272-2044. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Pedro J. Cuevas/  
Examiner, Art Unit 2834  
February 7, 2008

/Darren Schuberg/  
Supervisory Patent Examiner, Art Unit 2834